Notice of Allowability	Applicati n N . 10/510,030	Applicant(s) LIN, HUAI	
	Examiner Bentsu Ro	Art Unit 2837	

-- The MAILING DATE f this communication appears on th cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *applicant's amendment after FINAL, filed on 6/19/2006*.

2. ☒ The allowed claim(s) is/are *3,4,8-12 and 14-16*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 6/8/06

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with applicant's attorney (Joan Kluger) on July 6, 2006.

The application has been amended as follows:

Cancel Claim 13.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Bentsu Ro whose telephone number is 571 272-2072.

The examiner can normally be reached on WS08605.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/6/2006

Bentsu Ro
Senior Examiner
Art Unit 2837

Please enter the examiner's Amendment as shown. Thanks. Ro 7/6/2006

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computing a current rotating angle θ_{n+1};

computing two voltage outputs V_q and V_d; and

rotating the voltage outputs V_q and V_d by the angle θ_{n+1}.

10. (Previously presented) The method for controlling a permanent magnet electric motor according to claim 9, wherein said computing a current rotating angle θ_{n+1} is done using a current torque T and a preset speed ω of the permanent magnet electric motor (12) with the formula $\theta_{n+1} = \theta_n + k_1 \times \omega + k_2 \times T$ where k_1 and k_2 are constants.

11. (Previously presented) The method for controlling a permanent magnet electric motor according to claim 10, wherein said computing two voltage outputs V_q and V_d comprises:

computing the voltage output V_q on a d-q axis fixed on a rotor axis: $V_q = PI (I^* - I_d) + k_3 \times I_q$ where k_3 is a constant, "PI" referring to a proportional and integral operator, defined as follows: $PI(x) = ax + b\int x \, dt$ where a and b are constants and integration is over time; and

computing the voltage output V_d, according to the following equation on the d-q axis fixed on the rotor axis: $V_d = k_5 \times I_d + k_4 \times I_q \times \omega$ where k_4 and k_5 are constants.

12. (Previously presented) The method for controlling a permanent magnet electric motor according to claim 10, wherein said obtaining voltage controlling signals comprises obtaining three voltage controlling signals V_a, V_b and V_c according to the following equations: $V_a = V_d \times \cos(\theta_{n+1}) + V_q \times \sin(\theta_{n+1})$, $V_b = V_d \times \cos(\theta_{n+1}+120°) + V_q \times \sin(\theta_{n+1}+120°)$ and $V_c = V_d \times \cos(\theta_{n+1}-120°) + V_q \times \sin(\theta_{n+1}-120°)$.

13. (Previously presented) The method for controlling a permanent magnet electric motor according to claim 5, wherein constants are set based on a number of parameters selected in the group comprising a sampling rate of a computer to be used, conditions of a power drive, sensitivity of current sensors used for current measurements and characteristics of the permanent magnet electric motor (12).

Cancel Claim 13.

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